

# Claims

- [c1] 1. An arrangement for a turbocompound type internal combustion engine, comprising:  
an exhaust system for ducting the engine's exhaust gases and including a supercharger turbine that drives a compressor for combustion air to the engine;  
an exhaust turbine located in the exhaust system downstream of the supercharger turbine and configured to extract residual energy from an exhaust flow of the engine, via transmission to the combustion engine's crank shaft;  
the exhaust system further comprises an exhaust braking throttle placed downstream of the exhaust turbine;  
and  
the exhaust braking throttle comprises a pressure-controlled exhaust pressure regulation means for enabling variable regulation of an exhaust braking pressure in at least one through-put setting in addition to the steps "off" and "on," the exhaust pressure regulator being provided with means for adapting the exhaust braking pressure to the engine speed.
- [c2] 2. The arrangement as recited in claim 1, wherein the

exhaust braking throttle further comprises an exhaust throttle placed in the exhaust system downstream of the exhaust turbine and a parallel bypass regulated by the exhaust pressure regulator.

[c3] 3. The arrangement as recited in claim 1, wherein the exhaust pressure regulator consists of a piston valve comprising a first piston surface acted upon by the exhaust pressure when the exhaust braking throttle is closed, and a second opposing piston surface permanently connected to the first piston surface, which second piston surface is acted upon by a control pressure.

[c4] 4. A method for providing stress-limited engine braking control to a turbocompound type internal combustion engine, comprising:  
providing an exhaust system in association with a turbocompound type internal combustion engine that ducts an exhaust gas flow from the engine and which further comprises a supercharger turbine that drives a compressor for engine combustion air to the engine;  
configuring an exhaust turbine located in the exhaust system downstream of the supercharger turbine to extract residual energy from the exhaust gas flow utilizing a transmission coupled to a crank shaft of the combustion engine and further including an exhaust braking throttle downstream of the exhaust turbine; and

variably controlling the configuration of the exhaust braking throttle utilizing a pressure-controlled exhaust pressure regulator that causes variable configuration of the exhaust braking throttle in dependence upon the currently occurring engine speed.